

PATENT COOPERATION TREATY

REC'D 21 JUL 2005
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From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2005/051014

International filing date (day/month/year)
24.03.2005

Priority date (day/month/year)
30.03.2004

International Patent Classification (IPC) or both national classification and IPC
G02B3/14, G02B26/02

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/051014

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
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International application No.
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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	10-14, 16-18
	No: Claims	1-9, 15
Inventive step (IS)	Yes: Claims	
	No: Claims	1-18
Industrial applicability (IA)	Yes: Claims	1-18
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
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AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/IB2005/051014

Re Item V.

- 1 Reference is made to the following documents:

D1: WO 02/069016 A (LIGHTWAVE MICROSYSTEMS CORPORATION) 6
September 2002 (2002-09-06)
D2: US-A-4 701 021 (LE PESANT ET AL) 20 October 1987 (1987-10-20)
D3: PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12, 5 December 2003 (2003-
12-05) & JP 2003 309756 A (FUJI PHOTO OPTICAL CO LTD), 31 October
2003 (2003-10-31)
D4: US-B1-6 369 954 (BERGE BRUNO ET AL) 9 April 2002 (2002-04-09)
D5: WO 03/069380 A (KONINKLIJKE PHILIPS ELECTRONICS N.V; FEENSTRA,
BOKKE, J; KUIPER, STEIN) 21 August 2003 (2003-08-21)
D6: US 2002/122375 A1 (HENDRIKS BERNARDUS HENDRIKUS WILHELMUS) 5
September 2002 (2002-09-05)

2 ARTICLE 6 PCT

- 2.1 Claim 1 is unclear with respect to the function of the variable lens. From the description it is noticed that the focus of the lens is varied by moving the volume of one of the fluids which is arranged between the two volumes of the other fluid within the cylindrical fluid chamber (cf. originally filed description pg. 3, ln. 19-pg. 4, ln. 17). This feature is considered essential to the definition of the invention and should be included in independent claim 1, in accordance with the requirement of Article 6 PCT in combination with Rule 6.3(b) PCT.
- 2.2 Claim 15 is an independent claim, however in accordance with the originally filed description pg. 5, ln. 11-20, the aforementioned claim should be made dependent. Otherwise a lack of unity objection rises (Rules 13.1 and 13.2 PCT).

3 INDEPENDENT CLAIM 1

- 3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (cf. Fig. 50-53; par. [0102]-[0110] and par. [0193]-[0196])
(the references in parentheses applying to this document):

A variable lens comprising:

- a substantial cylindrical fluid chamber (cf. Fig. 50) including a first, electrically conductive, fluid (5004) and a second, non-conductive, fluid (5006), the fluids being non-miscible, in contact with each other and having different indices of refraction, and
- an electrode configuration comprising a first electrode in contact with the first fluid (cf. Fig. 10A) and second electrode means (cf. Fig. 4) arranged at the chamber wall, characterized in that
- a volume of one of the fluids (5004) is arranged between two volumes of the other fluid (5006), in that
- the second electrode means comprises at least two sub-electrodes (cf. Fig. 4) each covering, in the direction of the cylinder axis, different portions of the cylinder wall and in that
- the chamber wall is provided with two openings at its opposite ends which openings are interconnected by means of an external fluid guide (cf. Fig. 50) to circulate one of the fluids in and out the chamber.

3.2 For reasons of completeness it is noticed that the device (10) in Fig. 5, 6 of D2 anticipates the wording of claim 1.

3.3 The variable lenses of D4 and D5 would be modified in view of D1 or D2 to derive alternative lenses based on the electrowetting effect (Article 33(3) PCT).

4 INDEPENDENT CLAIM 15

4.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 15 is not new in the sense of Article 33(2) PCT. It is common knowledge that mobile phones are normally hand-held apparatuses (cf. also D3, abstract, Figure).

5 DEPENDENT CLAIMS 2-14, 16-18

Dependent claims 2-14, 16-18 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, because they concern known or standard

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International application No.

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structural aspects and applications of variable lenses (Article 33(2) and (3) PCT).